

IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

On page 1, please replace the paragraph starting on line 24 with the following paragraph:

**FIG. 8** is a flowchart of a modem pool transceiver process for establishing a connection using a fast access channel.

On page 1, please replace the paragraph starting on line 26 with the following paragraph:

**FIG. 9** shows an access terminal apparatus.

On page 1, please replace the paragraph starting on line 32 with the following paragraph:

The presently disclosed embodiments are directed to an improved method and apparatus of allocating traffic channel resources in a high data rate (HDR) wireless communication system. An example HDR system is described in U.S. Patent Application Serial No. 08/963,386, now U.S. Patent No. 6,574,211, issued June 3, 2003, assigned to the assignee of the present application, incorporated herein by reference, and hereinafter referred to as the '386 application. In the '386 application, a system is described wherein an HDR-capable subscriber station transmits data on a reverse link using a CDMA waveform of multiple orthogonal channels. The access channel structure used in an HDR system is similar to that described in EIA/TIA-95B entitled "MOBILE STATION-BASE STATION COMPATIBILITY STANDARD FOR WIDEBAND SPREAD SPECTRUM CELLULAR SYSTEMS," familiar to those skilled in the art, and hereinafter referred to as "95B."

On page 2, please replace the paragraph starting on line 6 with the following paragraph:

**FIG. 1** is a diagram of an example HDR communication system. An HDR subscriber station, referred to herein as an access terminal (AT) **102**, may be mobile or stationary, and may communicate with one or more HDR base stations, referred to herein as modem pool transceivers (MPTs) **108**. An access terminal **102** transmits and receives data packets through one or more modem pool transceivers **108**, to an HDR base station controller, referred to herein as a modem

pool controller (MPC) **110**. Modem pool transceivers and modem pool controllers are parts of a network called an access network (AN). An access network transports data packets between multiple access terminals. The access network may be further connected to additional networks outside the access network, such as a corporate intranet or the Internet, and may transport data packets between each access terminal and such outside networks. An access terminal that has established an active traffic channel connection with one or more modem pool transceivers is called an active access terminal, and is said to be in a traffic state. An access terminal that is in the process of establishing an active traffic channel connection with one or more modem pool transceivers is said to be in a connection setup state. An access terminal may be any data device that communicates through a wireless channel or through a wired channel, for example using fiber optic or coaxial cables. An access terminal may further be any of a number of types of devices including, but not limited to PC card, compact flash, external or internal modem, or wireless or wireline phone. The communication link through which the access terminal **102** sends signals to the modem pool transceiver **108** is called a reverse link **104**. The communication link through which a modem pool transceiver **108** sends signals to an access terminal **102** is called a forward link **106**.

On page 6, please replace the paragraph starting on line 17 with the following paragraph:

Each modem pool transceiver that establishes a connection with an access terminal assigns an RPC index from a set of RPC code channels. The RPC code channels comprise a subset of the modem pool transceiver's forward link MAC code sub-channels. The RPC index defines the Walsh cover used by the modem pool transceiver to transmit the RPC bit stream destined from the modem pool transceiver to that access terminal. Additionally, the RPC index may define the quadrature phase shift keying (QPSK) modulation phase (e.g., in-phase or quadrature) used to transmit the RPC bit stream. One RPC bit is transmitted to each active access terminal in each time slot. In an exemplary embodiment, the MAC channel transmissions **308a** and **308b** (from **FIG. 3**) each have a duration of 64 chips. The RPC bit is transmitted as four copies of the 32-ary Walsh function having an index  $i$  corresponding to the intended destination access terminal. Together, the four copies of the 32-ary Walsh function have the same length as the two 64-chip MAC channel periods **308a** and **308b** of each forward link time

slot. In an exemplary embodiment, 600 RPC bits per second are transmitted to each active access terminal.

On page 13, please replace the paragraph starting on line 9 with the following paragraph:

If, in step **706**, the access terminal detects a fast access indicator corresponding to the fast access probe preamble, the access terminal begins transmitting a fast connect reverse traffic channel signal in step **708**. While transmitting the fast connect reverse traffic channel signal in step **708**, the access terminal also sends DRC signals requesting a data rate at which signals may be received over the forward rate-controlled common channel. While transmitting **708** the fast connect reverse traffic channel signal, the access terminal monitors the forward link and attempts to decode additional messages used to establish a traffic channel connection. The access terminal monitors both the forward rate-controlled common channel and the forward common control channel to decode an access acknowledgment (ACK) in step **710**, decode a traffic channel (TC) assignment in step **712**, or decode a reverse traffic channel acknowledgment message (RTC-ACK) in step **714**. As discussed above, these three messages may be received individually or in a combined message over the forward rate-controlled forward channel at the specified DRC data rate. Upon successfully decoding a reverse traffic channel acknowledgment in step ~~[[722]]~~ **714**, the access terminal enters the traffic state in step **724**, and can begin sending and receiving data packets through the modem pool transceiver.

On page 14, please replace the paragraph starting on line 13 with the following paragraph:

If, in step **706**, the access terminal does not detect a corresponding fast access indicator, then the access terminal does not transmit a reverse link traffic channel signal. Because the access terminal is not transmitting DRC signals, the access terminal does not monitor the forward rate-controlled common channel for forward link messages. Instead, the access terminal monitors the forward control channel in order to decode additional messages used to establish a traffic channel connection. The access terminal attempts to decode an access acknowledgment (ACK) in step **716** and decode a traffic channel assignment message in step **718**. Upon successfully decoding a traffic channel assignment message in step **718**, the access terminal

begins transmitting a reverse link traffic channel (TC) using the traffic channel parameters specified in the received traffic channel assignment in step **720**. Thereafter, in step **722**, the access terminal may decode a reverse traffic channel acknowledgment (RTC-ACK) on either the forward link traffic channel or the forward control channel. Upon successfully decoding a reverse traffic channel acknowledgment in step **722**, the access terminal enters the traffic state in step **724**, and can begin sending and receiving data packets through the modem pool transceiver.

On page 15, please replace the paragraph starting on line 23 with the following paragraph:

If the modem pool transceiver does not acquire the fast connect reverse traffic channel in step **810**, then in step **812** the modem pool transceiver sends the access probe acknowledgment (ACK) and in step **814** sends the traffic channel assignment in response to the received access probe. The modem pool transceiver then monitors the reverse traffic channel specified in the traffic channel assignment. Upon acquiring the reverse traffic channel in step **816**, the modem pool transceiver sends a reverse traffic channel acknowledgment in step **818** and enters the traffic state in step **822**. Upon failing to acquire the reverse traffic channel in step **816**, the modem pool transceiver aborts and resumes attempting to detect an access probe in step **802**.

On page 17, please replace the paragraph starting on line 18 with the following paragraph:

Signal point mapped RPC bits for an access terminal are gain-controlled in a gain block **1003a**. The gain-controlled RPC signals produced at the output of the gain block **1003a** are mixed in with an RPC Walsh cover in a mixer **1004**. The RPC Walsh cover corresponds to the MAC code channel assigned to the destination access terminal. Though only the gain block **1003a** and the mixer **1004** necessary for one RPC code channel are shown, these elements may be repeated as necessary to accommodate a plurality of RPC code channels within the modem pool transceiver. One skilled in the art will recognize that the gain blocks ~~[[1002]]~~ **1003** and the mixers **1004** may be reversed, such that mixing occurs prior to gain adjustments, without departing from the scope of the present invention.

On page 17, please replace the paragraph starting on line 28 with the following paragraph:

Signal point mapped ~~[[Fast]]~~ fast access indicator bits are gain-controlled in a gain block **1003b**. As described above, the modem pool transceiver transmits fast access indicator bits in response to the receipt of a fast access probe preamble. The gain-controlled fast access indicator signals produced at the output of gain block **1003b** are mixed in with a fast access indicator Walsh cover in the mixer ~~[[1004]]~~ 1006. In an exemplary embodiment, the Walsh cover used for the fast access indicator is orthogonal to Walsh covers used for RPC signals.

On page 18, please replace the paragraph starting on line 38 with the following paragraph:

The Walsh covered MAC code channel signals, including fast access indicator signals and all RPC signals, are summed together in a summer **1008**. The resultant summed signals are repeated in a repeater **1010** to provide the appropriate number of chips for transmitting the MAC channel (**308** in **FIG. 3**) on either side of the pilot burst (**306** of **FIG. 3**). The MAC channel symbols output by the repeater **1010** are multiplexed with pilot and data channels in a time-domain multiplexer TDM block **1012**. The multiplexed signal stream output by the TDM block **1012** are then multiplied by a complex PN code in a PN spreader **1050** in FIG. 10b. In an embodiment, the PN spreader **1050** complex-multiplies the complex input I' and Q' by the complex PN code  $PN_I$  and  $PN_Q$  according to the equations:

$$I = I' PN_I - Q' PN_Q$$

$$Q = I' PN_Q + Q' PN_I$$

In an alternate embodiment, the PN spreader **1050** multiplies the complex input I' and Q' by a single real PN sequence according to the equations:

$$I = I' PN$$

$$Q = Q' PN$$

Alternatively, other complex or real multiplication equations may be used. One skilled in the art will recognize that complex or real PN codes may be generated in a variety of ways.